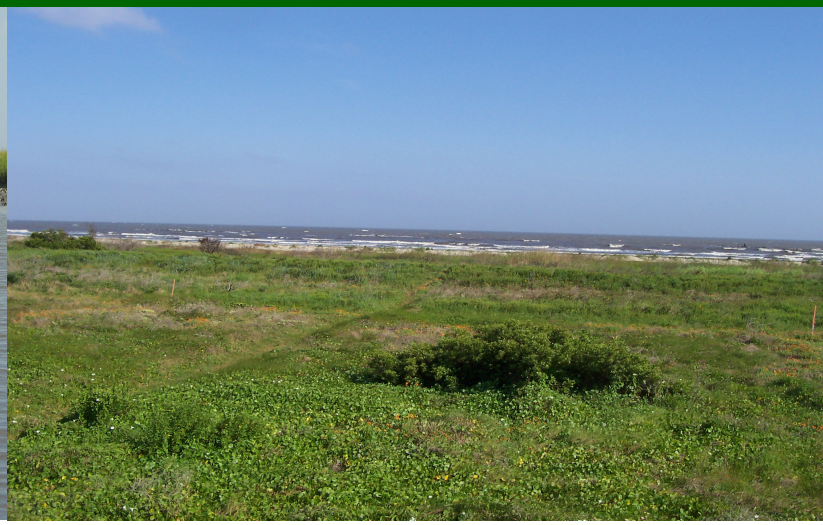
The Nature Conservancy

SAVING THE LAST GREAT PLACES ON EARTH

Grand Isle Oyster Reef Project:

Using cultch materials as a veneer on rock breakwaters to enhance oyster reef development at Grand Isle, Louisiana

The Nature conservancy in Grand Isle LA



Native Reef Restoration

Coastal Louisiana is one of the most biologically rich ecosystems on earth. It is well-known for its highly productive marine system. Louisiana boasts 40% of the nation's coastal wetlands but is losing these wetlands at the rate of 24 square miles per year. In response, state, federal and private interests have developed a comprehensive coastal restoration plan to address this loss. The work proposed here is intended as a complement to this effort, highlighting the importance of shellfish restorations as an important component of the overall strategy.

The Project:
Demonstration project to stimulate the colonization of oysters and eventual development of reef habitat on breakwater and shoreline rocks that are or will be placed on the north side of the island to reduce erosion. It is envisioned that this approach may be adopted by the coastal restoration community in LA as an alternative, where appropriate, to the existing practice of rock-only placement. Lay a 3-5 inch veneer of smaller-sized rocks (limestone or granite) and oyster shell over the existing rocks to increase smaller interstitial space areas and provide more refuge for oyster colonization and associated reef fauna. Rocks without the veneer will be used as a control for comparison. We will also follow for reference an intertidal oyster population on nearby Grand Terre Island

Right to left breakwater structures 5, 6, & 7 are project sites, Grand Isle Port Commission owns the site

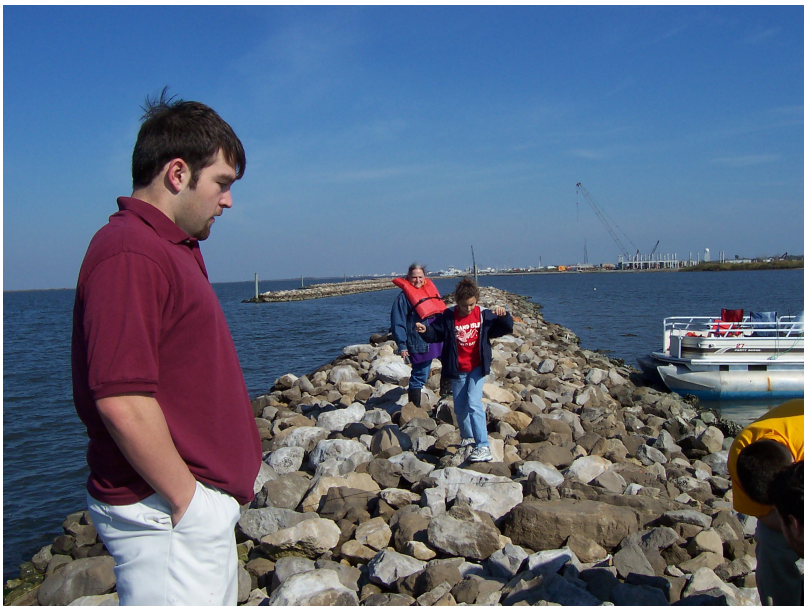
Placement of overlay materials on breakwater structures.

Economic and Ecological Benefits**:**
This project will determine if increasing the availability smaller-diameter interstitial space on existing rock breakwaters will enhance oyster reef development and hence, biodiversity enhancement.. It is thought that developing additional oyster habitat in the southern portion of the bay may also enhance upper bay recruitment during freshet events. If proven successful, development of oyster reef habitat in high-salinity areas can be potentially inexpensive by adding a veneer layer a-top the existing rock breakwater structures.

Spreading the Word—Working with Partners**:**
This project proposes to couple an existing technique for shoreline protection—rock breakwater placement– with development of a living reef structure. Many practitioners in LA have already expressed a keen interest in helping TNC develop a strategy to highlight the benefits and successes of this project and to export lessons learned to the restoration community at large.

Grand Isle School students have participated in data collection and "Oyster Week" activities for the past 2 school terms. Dr. Earl Melancon of Nicholls State University; Nicholas Gaspard, NSU Graduate Student; Dr. John Supan, LSU AgCenter; Dr. Gary LeFleur, NSU Biology Dept.; and Andrew Barron of Barataria Terrebonne National Estuary Program have made presentations to the student body in our efforts to educate the community about our project.

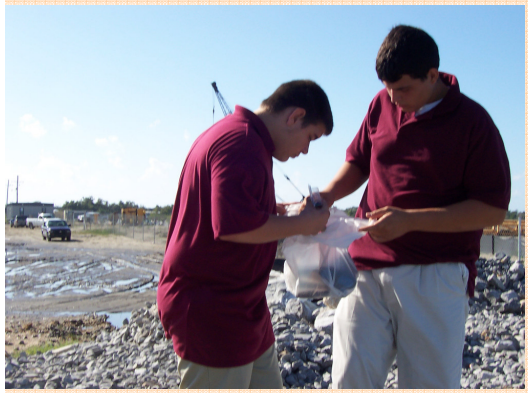
Partners in this project are: Barataria Terrebonne National Estuary Program, BP America, Grand Isle School, Grand Isle Port Commission, Town of Grand Isle, Nicholls State University Biology Department, and National Oceanic Atmospheric Administration.



Grand Isle School students assisting with project monitoring

"Seasoned" oyster shells used as overlay

3-5 inch limestone used as overlay



Grand Isle students collect water quality data for the reef project.

The mission of The Nature Conservancy is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

The National Partnership between the NOAA Community-based Restoration Program and The Nature Conservancy implements innovative conservation activities that benefit marine, estuarine and riparian habitats across the United States. The NOAA Restoration Center has worked with community organizations to support locally driven projects that provide strong on-the-ground habitat restoration components that offer educational and social benefits for people and their communities, as well as long-term ecological benefits.

for more information:
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